ISSN: 2450-8160

Herald pedagogiki. Nauka i Praktyka

wydanie specjalne



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(wydanie specjalne) Volume-2, № 5 October 2022

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Herald pedagogiki. Nauka i Praktyka (HP) publishes outstanding educational research from a wide range of conceptual, theoretical, and empirical traditions. Diverse perspectives, critiques, and theories related to pedagogy – broadly conceptualized as intentional and political teaching and learning across many spaces, disciplines, and discourses – are welcome, from authors seeking a critical, international audience for their work. All manuscripts of sufficient complexity and rigor will be given full review. In particular, HP seeks to publish scholarship that is critical of oppressive systems and the ways in which traditional and/or "commonsensical" pedagogical practices function to reproduce oppressive conditions and outcomes. Scholarship focused on macro, micro and meso level educational phenomena are welcome. JoP encourages authors to analyse and create alternative spaces within which such phenomena impact on and influence pedagogical practice in many different ways, from classrooms to forms of public pedagogy, and the myriad spaces in between. Manuscripts should be written for a broad, diverse, international audience of either researchers and/or practitioners. Accepted manuscripts will be available free to the public through HPs open-access policies, as well as we planed to index our journal in Elsevier's Scopus indexing service, ERIC, and others.

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ISSUES OF ADAPTATION TO CLIMATE CHANGE ARE AMONG THE PRIORITIES OF THE ENVIRONMENTAL POLICY OF UZBEKISTAN

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In the system of global problems of our time, climate change on the planet is of particular importance: not only environmental, but also economic, socio-political, legal and other issues are increasingly being considered through the prism of the climate paradigm. This is the reason for the heightened attention to international processes and documents related to climate phenomena in the recent history of civilization: compliance with the provisions and fulfillment of obligations under the Paris Agreement, initiatives of countries to reduce greenhouse gas emissions into the Earth's atmosphere, etc.

In Uzbekistan, 70 percent of whose territory consists of arid and semi-arid (arid) areas, which are very sensitive to abnormal natural phenomena, climate change adaptation issues have become a priority aspect of state environmental policy.

In April 2017, the country joined the Paris Agreement, and in September 2018, the National Parliament ratified this document.

In October 2019, by the Decree of the President of the country, the "Strategy for the transition of the Republic of Uzbekistan to a "green" economy for the period 2019-2030" was approved and is being implemented, a number of other government decisions have been adopted.

Uzbekistan demonstrates by practical deeds its commitment to fulfilling its obligations to reduce greenhouse gas emissions by 2030 under the Paris Agreement. According to the International Energy Agency, carbon dioxide emissions from fuel combustion in Uzbekistan have decreased to 85 million tons. According to the calculations of the experts of this agency, even with a forecast of growth in greenhouse gas emissions by 2030 by 60% of the current level, due to the high rates of economic development and rapid GDP growth, the republic will exceed the level of a 10 percent reduction in the carbon intensity of GDP by 2030, which corresponds to the accepted obligations of Uzbekistan.

At the same time, we would like to separately note the initiative of the President of Uzbekistan Sh.M. Mirziyoyev on the establishment of the SCO Climate Council, designed to increase the effectiveness of cooperation in the field of adaptation to climate change, combating desertification and land degradation, and introducing water-saving technologies.

The development of renewable energy sources plays a special role in the transition of the energy sector of the republic to a "green" economy. During the years of independence, a solid legislative base has been created in this area: the laws "On the use of renewable energy sources", "On the rational use of electrical energy", "On the use of atomic energy

for peaceful purposes", etc. have been adopted.

It should be noted that in Uzbekistan, in general, a fundamental legal basis for environmental protection and rational use of natural resources has been formed. Over the years of independence, more than 30 laws and over 350 legal documents in this area have been adopted. Uzbekistan is a signatory and has ratified 15 international conventions, protocols and other important documents.

In January 2022, by Decree of the President of the country, the "Development Strategy of New Uzbekistan for 2022-2026" was approved, where special attention is paid to the development of "green" energy. A task has been set and is being implemented to bring the volume of electricity produced from renewable sources (RES) to about 11,000 MW by 2026.

In particular, by 2026 the capacity of only solar and wind power plants in Uzbekistan will reach 8,000 MW, and the capacity of hydroelectric power plants will reach about 3,000 MW.

As a result, the share of renewable energy ("green" energy) will be 25% of the total volume of electricity produced in the country by this year.

So last year, the first large-scale solar power plant with a capacity of 100 MW was put into operation in the Navoi region of Uzbekistan.

In 2022, the construction of 2 solar photo power plants, each with a capacity of 220 MW, will be completed in the Samarkand and Jizzakh regions.

In 2023, it is planned to launch wind power plants in the Bukhara region with a total capacity of 1000 MW and 2 in the Navoi region with a capacity of 200 MW each, and in the Surkhandarya region of a large solar power plant with a capacity of 457 MW.

The Strategy for the Development of RES in the Republic of Uzbekistan, developed this year, provides for the widespread introduction of "green" technologies and the implementation of projects in the field of "green" energy, which will allow in the next ten years to increase the share of renewable energy sources in the energy balance of the Republic of Uzbekistan by more than 3 times and bring total RES capacity up to 15,000 MW.

It is appropriate to note that during the visit of the Head of State to Saudi Arabia in August this year, an agreement was reached on the construction by ACWA Power, a leading developer, investor and operator of power plants, as well as water desalination and green hydrogen production plants, in Karakalpakstan, the largest world wind farm with a capacity of 1.5 GW, which will provide electricity to 1.65 million households and offset 2.4 million tons of carbon dioxide emissions per year.

In the Development Strategy of New Uzbekistan for 2022-2026, special attention is also paid to the intensive development of hydrogen energy in the country.

In April 2021, Decree of the President of the country No. PP-5063 "On measures to develop renewable and hydrogen energy in the Republic of Uzbekistan" was adopted.

In order to strengthen parliamentary control over the implementation of adopted programs and plans in October 2020 in the structure of the Senate Oliy Majlis Republic





of Uzbekistan created a new Committee on the development of the Aral Sea region and ecology. This was an important event in the process of improving the legislative and control-analytical activities of the Parliament.

By the way, the experts of the aforementioned Senate Committee also made their contribution to the issues of cryogenic technology application. We have developed and brought to practical implementation relevant innovations in this area: in Nukus, a pilot plant was created to produce hydrogen in an environmentally friendly way, which is used as fuel for unmanned aerial vehicles. It uses electrical energy generated by photoconverters to decompose a water molecule. A copyright certificate has been obtained for this development, the relevant materials have been published in prestigious scientific journals in the United States and several European countries.

The issues of climate change and the dynamics of changes in the state of the natural environment in the Central Asian region cannot be considered without taking into account the consequences of the catastrophic drying of the Aral Sea. Suffice it to say that due to the drying up of the Aral Sea, climate changes in the Central Asian region are 2 times more intense than the average values in the world.

Intensive climate change, scarcity and pollution of water resources, declining drinking water quality, shrinking glacier area in the Pamirs and Tien Shan, where a significant part of the region's drainage is formed, pollution and land degradation, a sharp decrease in biodiversity, deterioration in the health status and gene pool of the population - this is just a short list of the results of the degradation of the Aral Sea.

The Aral Sea, which occupied an area of about 69,000 square kilometers, was a climate-regulating reservoir that softens sharp fluctuations in the weather in the region, favorably affecting the living conditions of the population, agricultural production and the ecosystem as a whole.

As is known, the drying up of the sea resulted in the formation of a new Aralkum desert with an area of more than 5.5 million hectares, from whose territory up to 100 million tons of sand and toxic salt dust were annually released into the atmosphere, spread over considerable distances from the Pamir and Himalaya mountain systems to Scandinavia.

Under the direct influence of these destructive environmental factors were the vast territories of the Aral Sea region and the population living there. The Aral Sea zone has become a territory with a high degree of risk to human health and ecosystem instability.

The President of Uzbekistan Sh.M. Mirziyoyev from the high podium of the UN at the 72nd and 75th sessions of the UN General Assembly again and again raised the topic of the Aral Sea crisis. This is due to the fact that due to the drying of the Aral Sea, climatic changes in the sea basin are much more severe than in other regions of the world.

Over the past five years, a number of state programs have been adopted and are being implemented aimed at mitigating the devastating effects of environmental degradation in the Aral Sea zone, accelerating the socio-economic development of the







Republic of Karakalpakstan and the Khorezm region. Thus, the Decree of the President of the Republic of Uzbekistan dated November 11, 2020 No. PP-4889 "On measures for the comprehensive socio-economic development of the Republic of Karakalpakstan in 2020-2023" provides for the implementation of 2,747 projects totaling 21.2 trillion soums and 1 billion US dollars.

At the initiative of the leadership of the republic, with the support of the Secretary-General of the United Nations, Mr. Ant?nio Guterres and friendly countries, in 2018, the Multi-Partner Trust Fund for Human Security for the Aral Sea region was created under the auspices of the UN.

As you know, in this zone of ecological crisis, unparalleled large-scale work is being carried out to improve the environmental situation, large-scale work is underway to afforest the dried bottom of the Aral Sea, seeds and seedlings of saxaul, as well as other salt-tolerant desert plants, have been planted, including with the help of aviation, on an area of more than 1 million 734 thousand hectares.

But a new approach to understanding this global problem of our time and finding ways to solve it is of paramount importance. As a result of the targeted efforts of the country's leadership, on May 18, 2021, at the 75th session of the UN General Assembly, a special resolution was unanimously approved to declare the Aral Sea region a "zone of environmental innovations and technologies." The value of this initiative lies in the fact that, firstly, it mobilizes funds specifically for solving environmental problems and socio-economic development of the Aral Sea zone; secondly, it gives an integrated approach to the assistance provided by avoiding duplication; thirdly, it allocates funds to ensure the sustainable development of the region; fourthly, it contributes to the innovative development of the Aral Sea region on the basis of mechanisms that bring targeted, direct and tangible benefits to the inhabitants of this region in the field of healthcare, education, providing the population with drinking water, creating jobs, etc.

Decree of the President of the country of July 29, 2021, adopted in order to ensure the implementation of a special resolution of the UN General Assembly, is aimed at mitigating the impact of climate change and the negative consequences of the Aral Sea crisis No. PP-5202, which approved the Roadmap, which includes 71 activities in seven areas of action, for the implementation of which 312 billion soums, 22.2 million US dollars and 6 million euros are provided, as well as 65 priority innovative projects, for the implementation of which it is planned to mobilize 1.9 trillion soums. Other, no less significant state decisions have been adopted.

At the same time, the scale of the tasks to be solved to mitigate the consequences of the Aral catastrophe for the environment and health of the population of the Aral Sea region necessitates more decisive actions, innovative approaches and bold proposals, effective coordination of efforts, pooling of resources at the national, regional and international levels to prevent even greater disasters in this area (suffice it to say that over the past two decades, Uzbekistan has experienced several extreme hydrological droughts, as a result of which, according to the World Bank, from 30 to 45% of the crop





in drought-affected areas died).

To implement these tasks, it is necessary to pay more attention to research and development projects and new technological solutions for water conservation and the rational use of other natural resources. In this direction, the members and experts of the Committee on the Development of the Aral Sea Region and Ecology aim to solve practical problems in the development, application of innovative solutions and modern environmentally friendly technologies in the Aral Sea Region. In particular, we are talking about the use of new agro-biotechnologies on saline soils in farms (bacterial fertilizer of complex action of the new generation "TERIA"), which makes it possible to increase the yield of agricultural products by 25-30%, save water resources by 20-30%, and increase plant immunity. by 30-35%. Last year, their application in various areas on an area of 1,440 hectares of agricultural land in Karakalpakstan gave very good results.

We have also developed methodological recommendations for determining the economic damage for emissions of pollutants into the atmospheric air and discharges of polluting effluents into open water bodies, as well as for assessing damage for pollution of land resources, published in authoritative scientific publications in the USA and Europe.

All this indicates that in order to achieve the strategic goal of mitigating the negative impact of climate change on public health and the environment, systemic efforts are needed: adoption of government decisions, integrated implementation of programs and projects on adaptation to climate change, parliamentary and deputy control over their implementation. , development and implementation of innovative environmentally friendly technologies.



